

CLAIMS

1.     Profiled steel decking which comprises a steel sheet roll formed to define at least two crests (1) and a trough (2) separated by inclined webs (3), the decking being characterised in that the boundaries between the webs (3) and the crests (1) are radiussed to define corners each having a smooth curvilinear profile (8), the radius of each such corner being between 15 and 30mm.
2.     Steel decking as claimed in claim 1 wherein the curvilinear corners have a radius of between 20 and 25mm.
3.     Steel decking as claimed in any one of the preceding claims wherein each inclined web of the steel decking includes two or more vertically spaced linear rows of embossments which extend outwardly from the outer surface of each inclined web.
4.     Steel decking as claimed in claim 4 wherein each embossment is generally circular in section and is produced by roll forming.
5.     Steel decking as claimed in claim 3 or claim 4 wherein each embossment of the uppermost row is positioned above a land portion separating neighbouring embossments of the lowermost row.
6.     Steel decking as claimed in any one of claims 3 to 5 wherein the diameter of each embossment lies within the range 9.0 to 15.0mm.
7.     Steel decking as claimed in any one of claims 3 to 6 wherein the spacing between the centres of neighbouring embossments lies within the range 30 to 40mm.

8. Steel decking as claimed in any one of claims 3 to 7 wherein the vertical distance between the upper and lower rows of embossments is between 27 and 37mm.
9. Steel decking as claimed in any one of the preceding claims wherein the trough between the two crests of the decking is formed with two stiffening ribs each of which is spaced generally equidistant from the lowermost end of the respective inclined web.
10. Steel decking as claimed in claim 9 wherein the flange portion, defined between the stiffening ribs provides a site for shear stud connectors.
11. Steel decking as claimed in claim 9 or claim 10 wherein the width of each stiffening rib of the trough is between 15 and 25mm.
12. Steel decking as claimed in any one of the preceding claims wherein each crest is formed with a generally 'V' shaped projection which, in use, defines a shear connector between the decking and a concrete layer cast over the upper surface of the decking.
13. Steel decking as claimed in any one of the preceding claims wherein the angle subtended by each inclined web to the horizontal lies within the range of 75 to 85°.
14. Steel decking as claimed in any one of the preceding claims roll formed from galvanised steel sheet whose gauge is between 0.8 and 1.3mm.